

SYSTEM FOR INDICATING THE POSITION OF A
SURGICAL PROBE WITHIN A HEAD ON AN IMAGE OF THE HEAD

Abstract of the Disclosure

5 A system for determining a position of a probe
relative to an object such as a head of a body of a patient.
The head includes a surface such as a forehead having a
contour. Cross sectional images of the head are scanned and
stored as a function of the forehead contour. If the
forehead contour does not appear in the scan images, then the
10 position of the forehead contour relative to the scan images
is determined with an optical scanner and a ring. During
surgery, the optical scanner also determines the position of
the forehead relative to the ring. An array for receiving
radiation emitted from the probe and from the ring generates
15 signals indicating the position of the tip of the probe
relative to the ring. A stereotactic imaging system
generates and displays an image of the head corresponding to
the measured position of the tip of the probe. The system
may also display scan images from different scanning
20 technologies which scan images correspond to the same
position in the head.